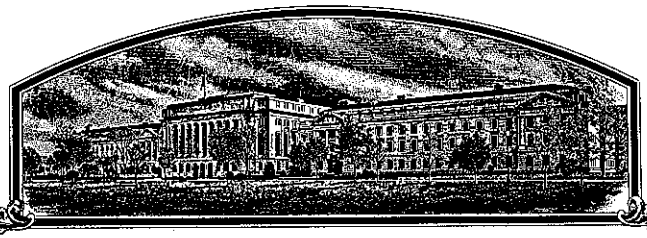
No. 9000118



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Delta & Pine Land Company

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF eighteen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Deltapine 878'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this 31st day of January in the year of our Lord one thousand nine hundred and ninety-two.

Attest:

Kenneth Hood
Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Edward Madigan
Secretary of Agriculture

APPROVAL EXPIRES 2-28-88

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

FORM APPROVED: OMB NO. 0581-0055

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME
Delta and Pine Land Company	Deltapine X676	Deltapine 878

4. ADDRESS *(Street and No. or R.F.D. No., City, State, and Zip Code)*	5. PHONE *(Include area code)*	FOR OFFICIAL USE ONLY
100 Main Street Scott, Mississippi	(601) 742-3351	PVPO NUMBER 9000118

6. GENUS AND SPECIES NAME	7. FAMILY NAME *(Botanical)*	FILING DATE / TIME
Glycine max	Leguminosae	Mar. 13, 1990 ☑ A.M. ☐ P.M.

8. KIND NAME	9. DATE OF DETERMINATION	FEES RECEIVED
Soybean	November, 1978	AMOUNT FOR FILING $1800.+350. DATE Mar. 7, 1990, Mar 13 1990 AMOUNT FOR CERTIFICATE $250.00 DATE December 2, 1991

10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION *(Corporation, partnership, association, etc.)*

Corporation

11. IF INCORPORATED, GIVE STATE OF INCORPORATION	12. DATE OF INCORPORATION
Delaware	Oct. 19, 1978

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS

Harry B. Collins
Delta and Pine Land Company
P. O. Box 157
Scott, Mississippi 38772

PHONE *(Include area code)*: (601) 742-3351

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED

a. ☒ Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety *(Request form from Plant Variety Protection Office.)*
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act.)* ☐ Yes *(If "Yes," answer items 16 and 17 below)* ☒ No

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ Yes ☐ No	☐ Foundation ☐ Registered ☐ Certified

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?

☐ Yes *(If "Yes," give date)*
☒ No

19. HAS THE VARIETY BEEN RELEASED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES ?

☒ Yes *(If "Yes," give names of countries and dates)*

United States - April 4, 1989

☐ No

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT	DATE
Harry B. Collins Vice President Director of Research	3-6-90
SIGNATURE OF APPLICANT	DATE

FORM LS-470 (3-86) *Edition of 7-84 obsolete.*

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EXHIBIT A

DELTA AND PINE LAND COMPANY
APPLICATION FOR DELTAPINE 878

Deltapine 878 originated from a cross Davis/Pickett 71. This cross was made in 1975. The pedigree method of breeding was employed in selecting this variety. In 1978, an F4 plant row was bulked for yield testing in 1979. Seed from the 1979 rows were bulked and used for subsequent yield testing and increasing. From 1980 on, concurrent yield testing and increasing of this line, then known as Deltapine x676, was carried out. Observations and roqueing were conducted for 6 years on each increase generation through the year 1986.

Deltapine 878 has been evaluated for 9 years in replicated yield tests conducted by Delta and Pine Land Company and several state experiment stations in the United States. Deltapine 878 is uniform and stable for all observable characteristics.

EXHIBIT B

9000118

Novelty Statement

Deltapine 878 is most similar to the variety Deltapine 417. The principal differences between Deltapine 878 and Deltapine 417 are flower color, date of maturity, seed size, and reaction to root knot nematode (Meloidogyne incognita) and frogeye leafspot (Cercospora sojina). Deltapine 878 has purple flowers while Deltapine 417 has white flowers. Deltapine 878 matures about two days later than Deltapine 417. Deltapine 878 has smaller seed size (12.5 g/100) than Deltapine 417 (14.3 g/100). The average height of Deltapine 878 is 99.1 cm while that of Deltapine 417 is 104.1 cm. Deltapine 878 is susceptible to root knot nematode (Meloidogyne incognita) while Deltapine 417 is resistant. Deltapine 878 is resistant to several races of frogeye leafspot while Deltapine 417 is susceptible.

FORM APPROVED: OMB NO. 0581-0055

EXHIBIT C
(Soybean)

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, MEAT, GRAIN & SEED DIVISION
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MARYLAND 20705

OBJECTIVE DESCRIPTION OF VARIETY
SOYBEAN (Glycine max L.)

NAME OF APPLICANT(S)	TEMPORARY DESIGNATION	VARIETY NAME
Delta & Pine Land Company		Deltapine 878

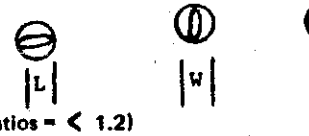
ADDRESS *(Street and No., or R.F.D. No., City, State, and Zip Code)*
100 Main Street
Scott, Mississippi 38772

FOR OFFICIAL USE ONLY
PVPO NUMBER
9000118

Choose the appropriate response which characterizes the variety in the features described below. When the number of significant digits in your answer is fewer than the number of boxes provided, place a zero in the first box when number is 9 or less (e.g., [0][9]).

1. SEED SHAPE:

[2]



1 = Spherical (L/W, L/T, and T/W ratios = < 1.2)
2 = Spherical Flattened (L/W ratio > 1.2; L/T ratio = < 1.2)
3 = Elongate (L/T ratio > 1.2; T/W = < 1.2)
4 = Elongate Flattened (L/T ratio > 1.2; T/W > 1.2)

2. SEED COAT COLOR: (Mature Seed)

[1] 1 = Yellow 2 = Green 3 = Brown 4 = Black 5 = Other *(Specify)* _____

3. SEED COAT LUSTER: (Mature Hand Shelled Seed)

[2] 1 = Dull ('Corsoy 79'; 'Braxton') 2 = Shiny ('Nebsoy'; 'Gasoy 17')

4. SEED SIZE: (Mature Seed)

[1][2] Grams per 100 seeds

5. HILUM COLOR: (Mature Seed)

[5] 1 = Buff 2 = Yellow 3 = Brown 4 = Gray 5 = Imperfect Black 6 = Black 7 = Other *(Specify)* _____

6. COTYLEDON COLOR: (Mature Seed)

[1] 1 = Yellow 2 = Green

7. SEED PROTEIN PEROXIDASE ACTIVITY:

[ ] 1 = Low 2 = High

8. SEED PROTEIN ELECTROPHORETIC BAND:

[ ] 1 = Type A ($SP1^a$) 2 = Type B ($SP1^b$)

9. HYPOCOTYL COLOR:

[3] 1 = Green only ('Evans'; 'Davis') 2 = Green with bronze band below cotyledons ('Woodworth'; 'Tracy')
3 = Light Purple below cotyledons ('Beeson'; 'Pickett 71')
4 = Dark Purple extending to unifoliate leaves ('Hodgson'; 'Coker Hampton 266A')

10. LEAFLET SHAPE:

[3] 1 = Lanceolate 2 = Oval 3 = Ovate 4 = Other *(Specify)* _____

11. LEAFLET SIZE:

[2] 1 = Small ('Amsoy 71'; 'A5312') 2 = Medium ('Corsoy 79'; 'Gasoy 17')
3 = Large ('Crawford'; 'Tracy')

12. LEAF COLOR:

[3] 1 = Light Green ('Weber'; 'York') 2 = Medium Green ('Corsoy 79'; 'Braxton')
3 = Dark Green ('Gnome'; 'Tracy')

13. FLOWER COLOR:

[2] 1 = White 2 = Purple 3 = White with purple throat

14. POD COLOR:

[1] 1 = Tan 2 = Brown 3 = Black

15. PLANT PUBESCENCE COLOR:

[1] 1 = Gray 2 = Brown (Tawny)

16. PLANT TYPES:

[2] 1 = Slender ('Essex'; 'Amsoy 71') 2 = Intermediate ('Amcor'; 'Braxton')
3 = Bushy ('Gnome'; 'Govan')

17. PLANT HABIT:

[1] 1 = Determinate ('Gnome'; 'Braxton') 2 = Semi-Determinate ('Will')
3 = Indeterminate ('Nebsoy'; 'Improved Pelican')

18. MATURITY GROUP:

[1][1] 1 = 000 2 = 00 3 = 0 4 = I 5 = II 6 = III 7 = IV 8 = V
9 = VI 10 = VII 11 = VIII 12 = IX 13 = X

19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

BACTERIAL DISEASES:

[0] Bacterial Pustule (*Xanthomonas phaseoli* var. *sojensis*)

[0] Bacterial Blight (*Pseudomonas glycinea*)

[0] Wildfire (*Pseudomonas tabaci*)

FUNGAL DISEASES:

[0] Brown Spot (*Septoria glycines*)

Frogeye Leaf Spot (*Cercospora sojina*)

[ ] Race 1 [ ] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [2] Other (*Specify*)
Resist. to unidentifie races in the field

[0] Target Spot (*Corynespora cassiicola*)

[2] Downy Mildew (*Peronospora trifoliorum* var. *manshurica*)

[2] Powdery Mildew (*Microsphaera diffusa*)

[0] Brown Stem Rot (*Cephalosporium gregatum*)

[2] Stem Canker (*Diaporthe phaseolorum* var. *caulivora*)

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19. DISEASE REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant) (Continued)

FUNGAL DISEASES: (Continued)

[0] Pod and Stem Blight *(Diaporthe phaseolorum* var; *sojae)*

[0] Purple Seed Stain *(Cercospora kikuchii)*

[0] Rhizoctonia Root Rot *(Rhizoctonia solani)*

Phytophthora Rot *(Phytophthora megasperma* var. *sojae)*

[1] Race 1 [1] Race 2 [ ] Race 3 [ ] Race 4 [ ] Race 5 [ ] Race 6 [ ] Race 7

[ ] Race 8 [ ] Race 9 [ ] Other *(Specify)* _____

VIRAL DISEASES:

[0] Bud Blight (Tobacco Ringspot Virus)

[0] Yellow Mosaic (Bean Yellow Mosaic Virus)

[0] Cowpea Mosaic (Cowpea Chlorotic Virus)

[0] Pod Mottle (Bean Pod Mottle Virus)

[0] Seed Mottle (Soybean Mosaic Virus)

NEMATODE DISEASES:

Soybean Cyst Nematode *(Heterodera glycines)*

[1] Race 1 [0] Race 2 [1] Race 3 [0] Race 4 [0] Other *(Specify)* _____

[0] Lance Nematode *(Hoplolaimus Colombus)*

[1] Southern Root Knot Nematode *(Meloidogyne incognita)*

[0] Northern Root Knot Nematode *(Meloidogyne Hapla)*

[1] Peanut Root Knot Nematode *(Meloidogyne arenaria)*

[0] Reniform Nematode *(Rotylenchulus reniformis)*

[2] OTHER DISEASE NOT ON FORM *(Specify)*: Cercospora sojina (Frogeye leafspot)

20. PHYSIOLOGICAL RESPONSES: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] Iron Chlorosis on Calcareous Soil

[0] Other *(Specify)* _____

21. INSECT REACTION: (Enter 0 = Not Tested; 1 = Susceptible; 2 = Resistant)

[0] Mexican Bean Beetle *(Epilachna varivestis)*

[0] Potato Leaf Hopper *(Empoasca fabae)*

[0] Other *(Specify)* _____

22. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant Shape	Deltapine 417	Seed Coat Luster	Kirby
Leaf Shape	Deltapine 417	Seed Size	Kirby
Leaf Color	Deltapine 417	Seed Shape	Kirby
Leaf Size	Deltapine 417	Seedling Pigmentation	Kirby

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23. GIVE DATA FOR SUBMITTED AND SIMILAR STANDARD VARIETY: Paired Comparison Data

VARIETY	NO. OF DAYS MATURITY	PLANT LODGING SCORE	CM PLANT HEIGHT	LEAFLET SIZE		SEED CONTENT		SEED SIZE G/100 SEEDS	NO. SEEDS/ POD
				CM Width	CM Length	% Protein	% Oil		
Deltapine 878 Submitted	11-02	2.2	99.1			39.9	18.6	12.5	3
eltapine 417 Name of Similar Variety	10-31	2.3	104.1			37.8	19.7	14.3	3

PUBLICATIONS USEFUL AS REFERENCE AIDS FOR COMPLETING THIS FORM:

1. Caldwell, B.E., ed. 1973. Soybeans: Improvement, Production, and Uses. Amer. Soc. Agron. Monograph No. 16.
2. Buttery, B.R. and R.I. Buzzell. 1968. Peroxidase activity in seeds of soybean varieties. Crop Sci., 8: 722-725.
3. Hymowitz, T. 1973. Electrophoretic analysis of SBTI-A_2 in the USDA soybean germplasm collection. Crop Sci., 13: 420-421.
4. Payne, R.C. and L.F. Morris. 1976. Differentiation of soybean cultivars by seedling pigmentation patterns. J. Seed Technol. 1: 1-19.

EXHIBIT D

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 878

Additional Description of the Variety

Deltapine 878 is a group VIII soybean which matures an average of 2 days earlier than Cobb, 3 days later than Coker 6738, 10 days later than Davis, 1 day later than Deltapine 417, 2 days later than Hartz 8112, 4 days later than Kirby, 1 day later than Perrin, and 11 days later than Pickett 71. Deltapine 878 has purple flowers, grey pubescence, a tan pod wall, and ovate leaflets. The foliage color of Deltapine 878 is a dark green. The seed coat color is light yellow and the seed coat luster is shiny. The hilum color is imperfect black. The hilum color varies from buff to near black based on environmental conditions. The seed of Deltapine 878 (3396 seed/pound) is about the same as that of Cobb (3490), Coker 6738 (3406), Davis (3798), Deltapine 417 (3228), Hartz 8112 (3431), and Perrin (3187). It is normally larger than that of Kirby (3604 seed/pound) and Pickett 71 (3959).

Deltapine 878 has an average protein content of 39.9% and an average oil content of 18.6%. This compares to Braxton at 37.8% and 19.4%, Deltapine 417 at 37.8% and 19.1%, and Ransom at 35.9% and 20.7%.

Deltapine 878 is resistant to some races of frogeye leafspot (Cercospora sojina). It is susceptible to most nematodes including soybean cyst and root knot nematodes.

Deltapine 878 is shorter (99.1 cm) than Cobb (104.1 cm), Deltapine 417 (106.7 cm), and Hartz 8112 (106.7 cm). It is taller than Coker 6738 (94.0 cm), Davis (91.4 cm), Kirby (96.5 cm), Perrin (94.0 cm), and Pickett 71 (78.7 cm).

As stated above Deltapine 878 has purple flowers, grey pubescence, and ovate leaflets. Deltapine 878 has up to 1 in 2000 plants with white flowers and up to 1 in 2000 plants with tawny pubescence. Deltapine 878 has an imperfect black hilum which varies in color due to environmental influences.

SUMMARY OF DATA FOR DELTAPINE 878 AND DELTAPINE 417
SEVENTEEN EXPERIMENTS FROM 1986-1989

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)	FOL.C (6)
DELTAPINE 417	W	G	61.0	104.1	2.3	4.2
DELTAPINE 878	P	G	63.0	99.1	2.2	4.7

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) MDI=MATURITY DATE INDEX
SEPTEMBER 1=DAY 1

(4) HGT=HEIGHT (CM)

(5) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

(6) FOL.C=FOLIAGE COLOR
1=LIGHT GREEN
5=DARK GREEN

9000118

1986 NC LATE MATURITY VIII MERIT KENLY, N.C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)
DELTAPINE 417	W	G	59.0	46.0	2.2
DELTAPINE 878	P	G	62.0	45.0	1.7

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) MDI=MATURITY DATE INDEX
SEPTEMBER 1=DAY 1

(4) HGT=HEIGHT (INCHES)

(5) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING

(6) FOL.C=FOLIAGE COLOR
1=LIGHT GREEN
5=DARK GREEN

9000118

1986 NC LATE MATURITY VIII MERIT COLUMBIA, N.C.

ENTRY	PC (1)	HGT (2)	LDG (3)
DELTAPINE 417	G	43.0	2.0
DELTAPINE 878	G	40.0	2.3

(1) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(2) HGT=HEIGHT (INCHES)

(3) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING

//

1986 NC LATE MATURITY VIII MERIT UC 98 SUMTER, S.C.

ENTRY	PC (1)	HGT (2)	LDG (3)
DELTAPINE 417	G	24.0	2.3
DELTAPINE 878	G	29.0	2.2

(1) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(2) HGT=HEIGHT (INCHES)

(3) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING

1986 NC LATE MATURITY MERIT SOYBEAN CYST NEMATODE (R3) WILSON, NC

ENTRY	PC (1)	HGT (2)
DELTAPINE 417	G	37.0
DELTAPINE 878	G	37.0

(1) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(2) HGT=HEIGHT (INCHES)

9000118

1986 NC LATE MATURITY MERIT SOYBEAN CYST NEMATODE (R3) WILSON, NC

ENTRY	PC (1)	HGT (2)	LDG (3)
DELTAPINE 417	G	34.0	2.3
DELTAPINE 878	G	30.0	2.2

(1) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(2) HGT=HEIGHT (INCHES)

(3) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING

1987 LATE MATURITY MERIT YIELD COLUMBIA, N.C.

ENTRY	FC (1)	PC (2)	HGT (3)	LDG (4)
DELTAPINE 417	W	G	39.0	2.7
DELTAPINE 878	P	G	43.0	2.5

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) HGT=HEIGHT (INCHES)

(4) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING

1987 LATE MATURITY MERIT YIELD KENLY, N.C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	FOL.C (5)
DELTAPINE 417	W	G	63.0	36.0	4.0
DELTAPINE 878	P	G	65.0	31.0	5.0

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) MDI=MATURITY DATE INDEX
SEPTEMBER 1=DAY 1

(4) HGT=HEIGHT (INCHES)

(5) FOL.C=FOLIAGE COLOR
1=LIGHT GREEN
5=DARK GREEN

1987 LATE MATURITY MERIT YIELD SUMMERTON, S.C.

ENTRY	FC (1)	PC (2)	HGT (3)	LDG (4)
DELTAPINE 417	W	G	44.0	2.5
DELTAPINE 878	P	G	45.0	2.5

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) HGT=HEIGHT (INCHES)

(4) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

1987 LATE MATURITY MERIT YIELD AMERICUS, GA.

ENTRY	FC (1)	PC (2)	HGT (3)	LDG (4)
DELTAPINE 417	W	G	49.0	2.0
DELTAPINE 878	P	G	44.0	1.7

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) HGT=HEIGHT (INCHES)

(4) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

1988 LATE MATURITY MERIT YIELD KENLY, N.C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)	FOL.C (6)
DELTAPINE 417	W	G	63.0	49.0	2.8	5.0
DELTAPINE 878	P	G	64.0	43.0	2.5	5.0

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) MDI=MATURITY DATE INDEX
SEPTEMBER 1=DAY 1

(4) HGT=HEIGHT (INCHES)

(5) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

(6) FOL.C=FOLIAGE COLOR
1=LIGHT GREEN
5=DARK GREEN

1988 LATE MATURITY MERIT YIELD COLUMBIA, N.C.

ENTRY	FC (1)	PC (2)	LDG (3)
DELTAPINE 417	W	G	1.5
DELTAPINE 878	P	G	1.3

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

1988 LATE MATURITY MERIT YIELD SUMPTER Co., S.C.

ENTRY	FC (1)	PC (2)	HGT (3)	LDG (4)
DELTAPINE 417	W	G	50.0	3.0
DELTAPINE 878	P	G	41.0	2.8

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) HGT=HEIGHT (INCHES)

(4) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

1989 GROUP VII MERIT TEST COLUMBIA, N.C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)
DELTAPINE 417	W	G	59.0	47.0	1.8
DELTAPINE 878	W	G	62.0	47.0	1.8

(1) FC=FLOWER COLOR
W=WHITE
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T=TAWNY
G=GREY

(3) MDI=MATURITY DATE INDEX
SEPTEMBER 1=DAY 1

(4) HGT=HEIGHT (INCHES)

(5) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

1989 GROUP VII MERIT TEST KENLY, N.C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)	FOL.C (6)
DELTAPINE 417	W	G	63.0	50.0	2.3	3.7
DELTAPINE 878	P	G	64.0	40.0	2.2	4.0

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SEPTEMBER 1=DAY 1

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(5) LDG=LODGING
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(6) FOL.C=FOLIAGE COLOR
1=LIGHT GREEN
5=DARK GREEN

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1989 GROUP VII MERIT TEST UPPER CP OSWEGO, S.C.

ENTRY	FC (1)	PC (2)	HGT (3)	LDG (4)
DELTAPINE 417	W	G	39.0	2.7
DELTAPINE 878	P	G	36.0	3.0

(1) FC=FLOWER COLOR
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(2) PC=PUBESCENCE COLOR
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G=GREY

(3) HGT=HEIGHT (INCHES)

(4) LDG=LODGING
1=NO LODGING
5=SEVERE LODGING.

1989 GROUP VII MERIT TEST LOWER CP FAIRFAX, S.C.

ENTRY	FC (1)	PC (2)	HGT (3)
DELTAPINE 417	W	G	36.0
DELTAPINE 878	W	G	34.0

(1) FC=FLOWER COLOR
W=WHITE
P=PURPLE

(2) PC=PUBESCENCE COLOR
T=TAWNY
G=GREY

(3) HGT=HEIGHT (INCHES)

1989 SUMMARY OF NC ADVANCED STRAINS VIII IN SOUTHEAST THREE LOCATIONS

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)
COBB	W	G	65.0	104.1	2.4
COKER 6738	P	T	60.0	94.0	2.0
DAVIS	W	G	53.0	91.4	2.4
DELTAPINE 417	W	G	62.0	106.7	2.2
DELTAPINE 878	P	G	63.0	99.1	2.0
HARTZ 8112	W	T	61.0	106.7	2.3
KIRBY	P	T	59.0	96.5	2.1
PERRIN	P	T	62.0	94.0	2.1
PICKETT 71	P	G	52.0	78.7	2.9

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5=SEVERE LODGING.

1989 SUMMARY OF THREE LOCATIONS SEED SIZE OF DP 878

ENTRY	SEED PER/LB
COBB	3490.0
COKER 6738	3406.0
DAVIS	3798.0
DELTAPINE 417	3228.0
DELTAPINE 878	3396.0
HARTZ 8112	3431.0
KIRBY	3604.0
PERRIN	3187.0
PICKETT 71	3959.0

1989 GROUP VIII ADVANCED STRAIN TEST FS KENLY, N. C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)	SEED (6)
COBB	W	G	67.0	101.6	2.3	2605.0
COKER 6738	P	T	60.0	91.4	1.7	2826.0
DAVIS	W	G	51.0	91.4	1.7	3045.0
DELTAPINE 417	W	G	63.0	106.7	2.0	2403.0
DELTAPINE 878	P	G	63.0	86.4	1.5	2657.0
HARTZ 8112	W	T	62.0	91.4	1.8	2946.0
KIRBY	P	T	59.0	88.9	1.5	2689.0
PERRIN	P	T	62.0	88.9	1.8	2559.0
PICKETT 71	P	G	48.0	73.7	2.8	3601.0

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5=SEVERE LODGING.

(6) SEED PER/POUND

1989 GROUP VIII ADVANCED STRAIN TEST COLUMBIA, N. C.

ENTRY	FC (1)	PC (2)	MDI (3)	HGT (4)	LDG (5)	SEED (6)
COBB	W	G	62.0	114.3	1.7	3798.0
COKER 6738	P	T	61.0	101.6	1.5	3717.0
DAVIS	W	G	55.0	106.7	1.8	4201.0
DELTAPINE 417	W	G	60.0	106.7	1.7	3730.0
DELTAPINE 878	P	G	62.0	116.8	1.5	3523.0
HARTZ 8112	W	T	61.0	129.5	1.7	3643.0
KIRBY	P	T	59.0	109.2	2.0	4031.0
PERRIN	P	T	62.0	96.5	1.2	3857.0
PICKETT 71	P	G	55.0	88.9	2.0	4042.0

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G=GREY

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SEPTEMBER 1=DAY 1

(4) HGT=HEIGHT (CM)

(5) LDG=LODGING
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5=SEVERE LODGING.

(6) SEED PER/POUND

1989 GROUP VIII ADVANCED STRAIN TEST UPPER CP OSWEGO, S. C.

ENTRY	FC (1)	PC (2)	HGT (3)	LDG (4)	SEED (5)
COBB	W	G	96.5	3.2	4066.0
COKER 6738	P	T	91.4	2.8	3676.0
DAVIS	W	G	78.7	3.7	4150.0
DELTAPINE 417	W	G	104.1	2.8	3549.0
DELTAPINE 878	P	G	94.0	3.0	4006.0
HARTZ 8112	W	T	96.5	3.3	3704.0
KIRBY	P	T	88.9	2.7	4090.0
PERRIN	P	T	96.5	3.2	3143.0
PICKETT 71	P	G	71.1	3.8	4233.0

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(5) SEED PER/POUND

EXHIBIT E

DELTA AND PINE LAND COMPANY'S APPLICATION FOR DELTAPINE 878

Statement of Basis of Applicant's Ownership

Delta and Pine Land Company owns the variety Deltapine 878 as this variety was developed by Delta and Pine Land Company. The cross was made by Delta and Pine Land Company personnel and subsequent selection and testing which led to the decision to release Deltapine 878 were conducted by personnel of Delta and Pine Land Company.